



## **KARI-USAID-SPAAR Sustainable Financing Initiative Workshop:**

**December 1-4, 1999** 

## **Highlights from the discussions**

# Making Agricultural Research and Technology Transfer Sustainable: Combining Policy, Financing, and Institutions

For four days, December 1-4, 1999, 45 participants met at the Kenya Agricultural Research Institute (KARI) in Nairobi to discuss and debate how to generate increased and sustainable funding for agricultural research and technology transfer. African participants came from 12 different countries, and from the public, private, and NGO sectors. They were joined by international donor agency representatives, technical experts, and a staff member of Uruguay's national agricultural research agency, INIA. The workshop focused on sharing experience with sustainable financing in Africa and South America, reviewing lessons learned, identifying future challenges and priorities, and discussing next steps. The key topics covered included: options for financial mechanisms and alternative funding strategies, institutional reforms, policy issues and frameworks, and new partnerships among key stakeholders. This communiqué presents selected highlights from the discussions of each of the topics and from the conclusions reached.

## **Sustainable Financing: Emerging Challenges and Opportunities**

Agricultural research has made major contributions to economic growth and the alleviation of poverty, yet research systems face declining and unstable public funding, both from national and international sources. As a result, NARSs have experienced severe financial shortages, degradation of capacity, stop-start programs, and brain drain as researchers leave the system. Over the past several years, NARSs across the continent have begun experimenting with new financial mechanisms, and have undertaken institutional reforms to restructure and revitalize. National and regional agricultural research funds, commercialization, and cess-funded research are examples of these new mechanisms. Models of successful institutional reform are beginning to take shape as well. There is an ongoing need to document, take stock of, and share experience with new mechanisms and institutional models. An important emerging challenge concerns the policy framework necessary to support agricultural research and technology transfer. One aspect deals with gaining a better understanding of supportive policies; another concerns the need to communicate better with stakeholders and policymakers. Researchers have often failed to transmit the message regarding the value of research, and thus have not built understanding of, and support for, the contribution of research to development. As NARSs pursue experimentation with new mechanisms, consolidate institutional reforms, and craft convincing messages to policymakers, opportunities for expanded funding for the agricultural research sector appear more promising than in the past. Another opportunity derives from the interest of the private and NGO sectors in collaborating more closely with public sector research institutions through cross-sectoral partnerships.

#### **Financial Mechanisms and Funding Options**

New financial mechanisms for mobilizing and allocating funding for agricultural research and technology transfer are at the heart of strategies for sustainable financing. The workshop concentrated on three: cesses, competitive grants, and commercialization.

**Research cesses** (levies, checkoffs) on exports or production can provide funding for research on commercial crops, and can also help make research responsive to client needs. The tea industry in Tanzania has successfully used a cess to establish a demand-driven institute, the Tea Research Institute of Tanzania (TRIT), and to fund its research program. Critical to using cesses is the ability to create value-added for commodity producers so they will have an incentive to support allocating the cess for research programs. One way of encouraging industries to support research through cesses is for government to provide public matching funds to those generated by the cess, as shown by the Uruguay case. An informal survey taken

among African workshop participants revealed that many countries have established commodity cesses. The workshop raised awareness of the potential of cesses and checkoffs for funding research.

Competitive grant systems (CGSs) represent a mechanism that has been utilized in different regions of the world to stimulate the development of new and responsive research agendas, and to introduce output-oriented and performance-based incentives for researchers. Participants stressed that making them work effectively calls for transparent and well-communicated procedures, training for scientists, clear connections between national priorities and grants, careful balance between autonomy and accountability, and progress/impact monitoring. CGSs should not be viewed as replacing more traditional funding procedures, but rather as a supplement to them. CGSs can be used for a variety of purposes, from short-to long-term research. Tailoring them for these different uses takes place through the establishment of purpose-specific criteria for grant award, performance, and impact achievement. Well-crafted criteria and effective procedures can encourage donors to agree upon similar administrative and reporting requirements, which can greatly simplify CGS operations.

Commercialization is another option that agricultural research institutions faced with shrinking public sector budgets frequently employ to supplement their finances. Presentations on KARI's and CSIR-Ghana's experiences with commercialization illustrated both the promise and the problems with commercialization. KARI has successfully generated resources through seed breeder's rights, contracts with private firms for crop research, and sale of agricultural services (e.g., soil testing and pesticide residue testing); there is some potential for income generation from commercialization of genetic resources as well. CSIR has been less successful in pursuing commercialization, with the exception of oil palm seed production. Among the reasons are conflicting and unclear government policy messages regarding the definition of commercialization, weak CSIR capacity to identify and respond to user needs, and lack of donor consensus on what commercialization strategies are best for CSIR. While recognizing the desirability of commercialization and the benefits it can bring-both in terms of resources and responsiveness to users, participants were unanimous in their concern that the public goods nature of research not be neglected in the chase for private sector resources. Government funding will always be important to agricultural research institutions. Participants recommended pursuing commercialization with a sharp focus on comparative advantage, and at the same time carrying the message to policymakers regarding the returns to publicly funded research.

#### **Institutional Reforms**

Restructuring is one approach used by policymakers and managers to adjust organizations to changes in the environment or new demands and circumstances. Structural changes may help improve the quality of work, manage scarce resources more carefully, bolster staff morale, and generate outside support for the work of the organization. For example, in 1996 in Tanzania, the Ministry of Agriculture and Cooperatives devolved responsibility for tea research to a new autonomous institution, TRIT, with a board of directors that includes both government and industry representatives. The new institution represents a promising example of institutional reform instigated by industry and government stakeholders that explicitly reframe the tea research mandate around responsiveness to industry demand and high quality performance. Another nascent example comes from Côte d'Ivoire, where over the past year the NARI has been transformed into a non-governmental entity with the government as the minority shareholder. CNRA is poised for success, though its potential is at present largely untested. Work remains to be done on revamping management systems and procedures to assure that the institution can take effective advantage of its new status, and respond to demand. The INIA-Uruguay case, where in 1990 the research institute was restructured as an autonomous agency, serves as a testament to the beneficial results of a reinvigorated structure and to the importance of an active board of directors. INIA's board is composed of four farmer representatives (two regular and two alternate) and two public sector members; one of latter serves as president. Other countries can learn from these examples.

## Policy Issues for Sustainable Agricultural Research Financing

Throughout the workshop, participants confirmed the importance of conducive policies for agricultural research funding. A critical point made repeatedly was the need for public discussion, debate, and information dissemination regarding the role of agricultural research and technology in socio-economic development, rural poverty alleviation, income generation, food and nutritional security, and sustainable natural resources management. A policy framework is needed that: a) increases the efficiency of resource allocation to research, b) enhances the ability of research systems to generate and disseminate new technology, c) promotes stable funding flows to research systems from government, d) induces the formation of partnerships between researchers and research/technology users, and e) promotes performance incentives for agricultural research. Creating such a framework, participants agreed, involves analysis to identify policies necessary to achieve these five objectives, and outreach for sensitization and advocacy to the broader policy community beyond the usual interlocutors that researchers are used to dealing with. Successful outreach depends upon crafting and delivering messages that resonate with this broader community's interests. Researchers should link what they can contribute to larger development policy issues. The research community needs to avoid being perceived by policymakers as simply an interest group pleading for more resources. This means it is important that positive links to stakeholders are established so that they will make the case for the value of

## Partnerships for Research and Technology Transfer

A paramount theme at the workshop was the centrality of partnerships. Participants from the public as well as the private and non-governmental sectors converged in a common recognition that each of their sectors has an important role to play in developing and maintaining effective and sustainable NARSs. While recognizing that, for the most part, public sector research and technology transfer institutions have in the past failed to provide the research outputs and technologies that meet user needs; nonetheless, the private and NGO sectors are eager to collaborate with public research entities to improve the situation. Among the roster of potential partners to link with public researchers are commodity associations, local as well as national governments (e.g., decentralized extension services), universities, and-very importantly, farmers' associations. Successful partnerships will concentrate upon research and technology development that is targeted on key problems and constraints, and is cost-effective; the watchword is "value for money." They will include farmers as full participants in research priority-setting and fieldwork, and recognize the realities facing farmers in terms of risk, market outlets, credit constraints, transportation infrastructure, and so on. Partnerships pose management challenges as well, since they call for new interfaces between cooperating sectors and high degrees of coordination and integration.

## **Conclusions and Next Steps**

Among the conclusions reached during the workshop were:

- Sustainable financing remains a critical problem for the effectiveness of agricultural research and technology transfer. It needs to be a top priority for Africa's NARIs and NARSs.
- A substantial amount of change is taking place as research institutions experiment with new mechanisms and begin to respond to new policy environments. However, this experimentation and change is not receiving sufficient attention from national policymakers and international donors.
- The message regarding the contribution of agricultural research and technology to Africa's economic development needs to reach a broader audience to build constituencies. The research community needs to do better outreach to new stakeholders who can reinforce the message and help promote the necessary institutional and policy reforms.
- Financing mechanisms need to balance the pursuit of public and private goals so as not to ignore the public goods component of agricultural research. Commercialization should not be pursued to the exclusion of research that serves the public interest.
- Competitive grants systems are becoming essential components of the funding mix for African NARSs. Many countries have established agricultural research funds (ARFs), and regional CGSs are under development at ASARECA and CORAF. CGSs hold a strong potential for increasing the performance incentives for researchers, and thereby building research systems that can convincingly demonstrate results.
- More understanding is needed regarding what policy frameworks are conducive to promoting sustainable financing for agricultural research and technology transfer.
- NARIs require training in management, policy advocacy and communication, and constituency building.
- Partnerships among public sector institutions, the private sector, and NGOs are essential for achieving sustainability and generating impacts, but partnerships imply new ways of interacting for all the partners.

At the closing session, participants agreed that the next steps should be to prepare materials summarizing the outcomes of the workshop, and develop a list of potential priorities for future action. These will be widely disseminated among members of the agricultural research community, and will be tabled for discussion at the February 2000 SPAAR meetings in Conakry, where the way forward will be debated.